

298863

RSPA-04-19317-1

13938-N  
#200409051

Packaging Solutions For The Waste Industry

6615 Promway Road  
North Canton, Ohio 44720  
www.QuestarUSA.com330-966-2070  
fax 330-966-9503

September 8, 2004

Associate Administrator  
Hazardous Materials Safety, Research And Special Programs Administration  
U.S. Department Of Transportation  
ATTN: DHM-31  
400 7th Street, SW  
Washington, DC 20590-0001

HAZMAT SAFETY  
DOT/RSPA  
04 SEP 10 PM 1:52

Dear Associate Administrator:

As per code of Federal Regulations Title 49, Chapter I, Part 107, Subpart B, Section 107.105, Questar, Inc is applying for an exemption.

Questar, Inc. is located at 6615 Promway Avenue NW, North Canton, Ohio 44720. Phone is 330-966-2070 and fax is 330-966-2070. Any inquiries regarding this application should be forwarded to Joe Kerrigan at the above address and phone. Joe Kerrigan can also be reached via e-mail at [jwkerrigan@questarusa.com](mailto:jwkerrigan@questarusa.com).

Questar, Inc. is requesting an exemption for the manufacture, marking, sale and use of UN 4G Fiberboard Boxes in sizes 10 and 5 gallon for use as the outer packaging for lab pack applications in accordance with § 173.12 (b) (2) (i) to manage waste hazardous materials classed as Class or Division 3, 4.1, 4.2, 4.3, 5.1, 6.1, 8 or 9, which are authorized to be shipped in lab packs in accordance with 49 CFR § 173.12 (b).

Questar is not seeking relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

Proposed mode of transportation is by motor vehicle only.

The manufacture of this container will occur at one or more of the following manufacturing locations. Copies of the exemption if granted will be kept at each manufacturing location.

Lewisburg Container  
P.O. box 873525  
Kansas City MO 64187

R & D Inc  
1111 Oberlin Rd. S.W.  
Massillon Oh 44648

04 OCT -5 AM 11:00

Questar, Inc. is the holder of the UN certification for the UN 4G Fiberboard Boxes for which an exemption is sought. See the attached testing data supporting our position as a holder of the UN certification. This container is currently certified to manage solid hazardous materials for Packing Group I performance level. The container is rated to manage up to 40 Kg for the 10 gallon size and 18 Kg for the 5 gallon size at the Packing Group I performance level.

The container is constructed of double wall, fiberboard sheet fashioned to form a box. Dimensions of the 10 gallon container are 13 3/8"d x 13 3/8"w x 16"h and 5 gallon container are 10 7/8 "d x 10 7/8" w x 13 "h. Containers require use of 2 mil LLDPE poly liner. Pictures of each container are enclosed. These containers are rated as a single use containers.



6615 Promway Road  
North Canton, Ohio 44720  
www.QuestarUSA.com

Packaging Solutions For The Waste Industry

330-966-2070  
fax 330-966-9503

Page 2, Application For Exemption, Questar, Inc, September 8, 2004

Questar, Inc is seeking an exemption from the requirements of § 173.12 (b) (2) (i). We specifically request that our Fiberboard Box be allowed as an outer container in addition to the containers specified in this paragraph (UN 1A2 - metal drum, UN 1B2 - metal drum, UN 1D - plywood drum, UN 1G - fiber drum, UN 1H2 - plastic drum marked for Packing Group III performance level).

Under § 173.12, lab packs are defined as waste materials classed as Class or Division 3, 4.1, 4.2, 4.3, 5.1, 6.1, 8, or 9 that are excepted from the specification packaging requirements of this sub chapter for combination packagings if packaged in accordance with the paragraph (§ 173.12 (b)) and transported for disposal or recovery by highway only.


Questar, Inc. believes that our 4G Fiberboard Box is suitable as an outer container to manage these materials. It is our contention that as a result of our container being rated for Packing Group I performance level that there is not an increased risk of safety or property.

Additionally, U.S. DOT has issued a similar exemption for 4G Fiberboard Boxes to manage the same materials in similar fashion. This exemption was granted to Con-Quest Products of Elk Grove, IL on August 4, 2003 and is recorded as DOT-E 10791 (copy enclosed).

We submit this application for exemption for proposed duration of two years with option to renew.

Thank you for your time and consideration of this matter. Any questions should be directed to Joe Kerrigan at 330-966-2070.

Cordially,



Joe Kerrigan  
Vice President

**ADVANCED PACKAGING  
TECHNOLOGY LABORATORIES INC.**

200 LARKIN DRIVE #H • WHEELING, IL 60090

Phone: (847) 520-4343 • Fax: (847) 520-4365 • Email: aptl@flash.net • Web: www.advanced-labs.com

Re: 10 Gallon

Report No. HM 4419.2

Date: August 27, 2004

**TESTS CONDUCTED FOR:**

Questar  
6615 Promway Ave. NW  
North Canton, OH 44720

Attn: Gary Alexander

**ITEMS TESTED:**

One (1) sample set of combination packages intended for the transport of hazardous solids.

Box: 500# RSC-style D/W (BC) flute (90-26-42-26-90) / inside glued mfr's joint / manufactured by Lewisburg Container Co., Lewisburg, OH.

Approx. Size (O.D.): 13 3/8" x 13 1/8" x 16 5/8"

Int. Pkg.:

One (1) 14 3/8" x 34 3/4" x .002" poly bag with 6 1/2" gussets.<sup>\*</sup> Bag is filled with an inert granular test media to achieve a gross weight not to exceed 88.2 lbs. Bag is secured closed utilizing a 7 1/2" long zip tie.

See attached sheet for set-up instructions.

Nominal Tare Weight: 3.1 lbs.

Nominal Gross Weight: 88.2 lbs.

Closures: 2" wide p.s. poly tape on top and bottom (H-pattern). Tape extends a minimum of 4" over edges.

Note: Photograph on file; copy of corrugated specifications on file.

**OBJECT OF TEST:**

To determine compliance with applicable sections of 49 CFR pertaining to the transport of dangerous goods – Packaging Group I.

**FINDINGS:**

As submitted and tested, this package design was considered to comply with noted requirements.



4G / X 40 / S / 04\*  
USA / +BR 4773


\*indicates last two digits  
of year of manufacture  
as per 178.503 (a) (6)

**EXPIRATION:**

This package certification expires 2 years from the date of this test report.

  
Dzinars Petersons – Senior Project Engr.

APPROVED BY:

  
Tim Phelan – Lab Technician

AS A MUTUAL PROTECTION FOR OUR CLIENTS AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF OUR CLIENTS, AND AUTHORIZATION FOR PUBLICATION IS RESERVED PENDING WRITTEN APPROVAL. SAMPLES WILL BE DISPOSED OF 10 DAYS AFTER TESTING IS COMPLETED UNLESS OTHER ARRANGEMENTS ARE AGREED TO IN WRITING.

**INSTRUCTIONS FOR SET-UP**

**Step 1)** Fold top flaps in, turn container upside down and fold bottom flaps.

**Step 2)** Tape bottom flaps with 2" wide p.s. poly tape with the tape extending a minimum of 4" over the edges (in an "H"-pattern, sealing all exposed seams).

**Step 3)** Insert poly liner bag and stretch around the container interior walls until firmly in place.

**Step 4)** Fill the container (bag) with material.

**Step 5)** Twist the bag closed tightly to secure that material and seal the bag with the appropriate zip tie.

**Step 6)** Carefully compress the bag of material into the container and close top flaps.

**Step 7)** Tape top flaps with 2" wide p.s. poly tape with tape extending a minimum of 4" over edges (in an "H" pattern, sealing all exposed seams).

**TEST RESULTS & SPECIFICS FOR FIBERBOARD BOXES -SOLIDS (4GS)****CONDITIONING [178.602 (d) (1) / 178.603 (c)]**

23±1° C &amp; 50±2% RH for 24 Hours

**REPETITIVE SHOCK VIBRATION (178.608)**

60 minutes, 90° rotation @ 30 minutes

(3 samples tested)

RESULT:

PASS

FAIL

**CONTROLLED FREE-FALL DROPS (178.603)**

DROP HEIGHT: 1.8 m

RESULT:

PASS

FAIL

1<sup>st</sup> drop: Flat on bottom2<sup>nd</sup> drop: Flat on top3<sup>rd</sup> drop: Flat on long side4<sup>th</sup> drop: Flat on short side5<sup>th</sup> drop: Corner**STACKING TEST (178.606)**REQUIRED ACTUAL

RESULT:

PASS

FAIL

SURCHARGE: 617.4 lbs. 625 lbs.  
(3 samples tested)**WATER ABSORPTION TEST (178.516)**

144,138,139,143,139

RESULT:

PASS

FAIL

Average: 140.6 g / sq.m / 30 minutes



## **TEST METHODS FOR FIBERBOARD BOXES – SOLIDS (4GS)**

### **REPETITIVE SHOCK VIBRATION TEST (ASTM D 999 METHOD A1 / A2)**

The vibrating apparatus consists of a table supported on eccentrics or cranks which are driven by shafts so as to give the table a circular harmonic vibratory motion in a vertical plane. It is capable of being operated at variable speeds to produce the various vibration frequencies experienced in transportation.

The vibration test is designed to simulate the small (1.0g to 1.1g) vertical shocks to which a package will be subjected to during truck or rail transportation. Empirically, it has been shown that this type of test will usually reproduce, overall, the type of damage incurred in shipment.

### **CONTROLLED FREE-FALL DROP TEST (ASTM D 775)**

The drop tester consists of a spring-loaded split table upon which the package is positioned in the orientation desired. In operation, the two sections pivot to each side, thus providing the package an unobstructed free-fall onto a concrete floor.

### **STATIC LOAD COMPRESSION TEST (ASTM D 4577 MOD.)**

The static load compression assembly consists of 3/4" plywood and a number of concrete panels / blocks and steel sheets. Utilizing the wood to uniformly distribute the test load, the dead weights are positioned upon the steel plates until the requisite, aggregate compressive load is achieved.

### **WATER ABSORPTION TEST (TAPPI T 441) (ISO 535)**

Cobb water absorption is conducted on the double-backer (outer facing) of five (5) specimens; a 100 sq. cm. cylinder is secured above the test specimen, which is placed atop a rubber mat to prevent leakage; 100 ml of water is then introduced into the cylinder, thus providing a one cm. bead of water; the initial and final weight of the specimen is recorded.

## **TEST PROCEDURES FOR FIBERBOARD BOXES – SOLIDS (4GS)**

Packages conditioned and tested @ standard laboratory conditions ( $23\pm1^{\circ}\text{C} + 50 \pm 2\%\text{RH}$ ).

### **REPETITIVE SHOCK VIBRATION TEST (49 CFR – 178.608)**

Three (3) packages were subjected to synchronous vibratory motions on a variable speed vibration table having an amplitude of one inch, producing a force of 1 g. Vibration frequency was set so the packaged product momentarily left the table  $\approx 1/16"$ . The packages were positioned in their normal shipping orientation and rotated  $90^{\circ}$ , horizontally, after one half of the vibration period was completed – total duration of vibration was 60 minutes.

### **CONTROLLED FREE-FALL DROP TEST (49 CFR – 178.603)\***

Each of five (5) packages were subjected to one (1) free-fall drop as follows:

Pack one: flat onto bottom surface	Drop Height: Group I: 1.8m ( $\approx 70.9"$ )
Pack two: flat onto top surface	Group II: 1.2m ( $\approx 47.25"$ )
Pack three: flat onto side of package	Group III: 0.8m ( $\approx 31.5"$ )
Pack four: flat onto end of package	
Pack five: cornerwise onto bottom	

### **STATIC LOAD COMPRESSION TEST (49 CFR – 178.606)**

Each of three (3) containers were orientated in their normal warehousing position, and the required dead weight load was applied at a rate of  $\approx 50$  pounds per minute – test loads were maintained for 24 hours, except that plastic drums, jerricans, and composite packaging 6HH, intended for liquids, shall be subjected to the stacking test for a period of 28 days at a temperature of not less than  $40^{\circ}\text{C}$  ( $104^{\circ}\text{F}$ ).

### **WATER ABSORPTION TEST (49 CFR – 178.516)**

Five (5) specimens, selected from various boxes, were subjected to water absorption tests, the average of the five (5) specimens (none exceeding 155 g / sq. m / 30 mins.) was recorded.

\*Special preparation of test samples for the drop test. Testing of plastic drums, jerricans and boxes, composite packagings with inner plastic receptacles, and of combination packagings with inner plastic receptacles, other than expanded plastic boxes and bags, must be carried out when the temperature of the test sample and its contents has been reduced to  $-18^{\circ}\text{C}$  ( $0^{\circ}\text{F}$ ) or lower. Test liquids shall be kept in the liquid state, if necessary, by the addition of anti-freeze.

## **ACCEPTANCE CRITERIA FOR FIBERBOARD BOXES – SOLIDS (4GS)**

### **REPETITIVE SHOCK VIBRATION TEST**

No rupture or leakage from any of the three (3) containers.

### **CONTROLLED FREE-FALL DROP TEST**

No leakage from inner receptacle(s) or packaging(s);  
No physical deterioration of the packages that would adversely affect the safe transport of said items.

### **STATIC LOAD COMPRESSION TEST**

No leakage from inner receptacle(s) or packaging(s);  
No physical deterioration of the packages that would adversely affect the safe transport of said items;  
No distortion liable to reduce package strength;  
No distortion liable to cause stack instability.

### **WATER ABSORPTION TEST**

No water absorption greater than 155 grams / sq. meter / 30 minutes.

## CALIBRATION DATA

### BURST TESTER

Mullen / BF Perkins – Inst. Cal Corp.

DUE DATE:

7-05

### CHART RECORDERS

Molytek – Cal-Lab

6-05

### CONDITIONING CHAMBERS

Conditioning Room  
Chamber Blue M Ovens: Cal-Lab  
Chamber (vacuum): VWR – Cal-Lab  
Conditioning Chambers: Thermotron

3-05  
6-05  
6-05  
3-05

### COMPRESSION TESTING MACHINES

Tinius Olsen – Cal-Rite Corporation  
Instron TTC – Cal-Rite Corporation

6-05  
6-05

### CONTROLLED FREE-FALL DROP TESTERS

Gaynes  
L.A.B.

6-05  
6-05

### ELECTRONIC MICROMETERS

Mitutoyo – Cal-Rite Corporation  
Testing Machines, Inc. – Cal-Rite Corp.

6-05  
6-05

### HYDRAULIC PRESSURE GAUGE

D&B – Cal-Lab

6-05

### LABORATORY SCALE

American Scientific Products – Cal-Rite Corporation

6-05

## **CALIBRATION DATA (CONTINUED)**

### **MECHANICAL MICROMETER**

E.J. Cady & Co. – Cal-Rite Corp.

**DUE DATE:**

6-05

### **PACKAGE SCALE**

AND: Cal-Rite Corp.  
BE 4315 A – Cal-Rite Corp.

6-05

6-05

### **PNEUMATIC PRESSURE GAUGE**

Continental Precision Instruments – Factory Calibrated

6-05

### **PUNCTURE TESTER**

TMI – Internal

6-05

### **TORQUE TESTER**

Secure Pak – Factory Calibrated

8-04

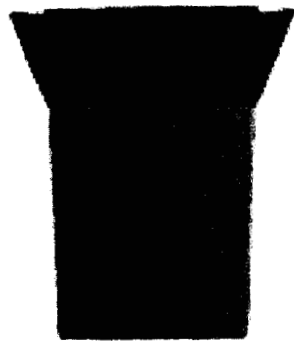
### **VIBRATION TESTING MACHINE**

ME 2500 - ISTA  
MTS-VR DDL - PCB

6-05

6-05

10 gallon box





**ADVANCED PACKAGING  
TECHNOLOGY LABORATORIES INC.**

200 LARKIN DRIVE #H • WHEELING, IL 60090

Phone: (847) 520-4343 • Fax: (847) 520-4365 • Email: aptl@flash.net • Web: www.advanced-labs.com

Re: 5 Gallon

Report No. HM 4419.1

Date: August 27, 2004

**TESTS CONDUCTED FOR:**

Questar  
6615 Promway Avenue NW  
North Canton, OH 44720

Attn: Gary Alexander

**ITEMS TESTED:**

One (1) sample set of combination packages intended for the transport of hazardous solids.

Box: 500# RSC-style D/W (BC) flute (90-26-42-26-90) / inside glued mfr's joint / manufactured by Lewisburg Container Co., Lewisburg, OH.

Approx. Size (O.D.): 10 7/8" x 10 3/4" x 13 5/8"

Int. Pkg.:

One (1) 14 3/8" x 34 3/4" x .002" poly bag with 6 1/2" gussets.\* Bag is filled with an inert granular test media to achieve a gross weight not to exceed 39.7 lbs. Bag is secured closed with a 7 1/2" long zip tie.

See attached sheet for set-up instructions.

Nominal Tare Weight: 2.1 lbs.

Nominal Gross Weight: 39.7 lbs.

Closures: 2" wide p.s. poly tape on top and bottom (H-pattern). Tape extends a minimum of 4" over edges.

Note: Photograph on file; copy of corrugated specifications on file.

**OBJECT OF TEST:**

To determine compliance with applicable sections of 49 CFR pertaining to the transport of dangerous goods – Packaging Group I.

**FINDINGS:**

As submitted and tested, this package design was considered to comply with noted requirements.



4G / X 18 / S / 04\*  
USA / +BR 4772

\*indicates last two digits  
of year of manufacture  
as per 178.503 (a) (6)

**EXPIRATION:**

This package certification expires 2 years from the date of this test report.

Dzintars Petersons – Senior Project Engr.

APPROVED BY:

Tim Phelan – Lab Technician

AS A MUTUAL PROTECTION FOR OUR CLIENTS AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF OUR CLIENTS, AND AUTHORIZATION FOR PUBLICATION IS RESERVED PENDING WRITTEN APPROVAL. SAMPLES WILL BE DISPOSED OF 10 DAYS AFTER TESTING IS COMPLETED UNLESS OTHER ARRANGEMENTS ARE AGREED TO IN WRITING.

**INSTRUCTIONS FOR SET-UP**

**Step 1)** Fold top flaps in, turn container upside down and fold bottom flaps.

**Step 2)** Tape bottom flaps with 2" wide p.s. poly tape with the tape extending a minimum of 4" over the edges (in an "H"-pattern, sealing all exposed seams).

**Step 3)** Insert poly liner bag and stretch around the container interior walls until firmly in place.

**Step 4)** Fill the container (bag) with material.

**Step 5)** Twist the bag closed tightly to secure that material and seal the bag with the appropriate zip tie.

**Step 6)** Carefully compress the bag of material into the container and close top flaps.

**Step 7)** Tape top flaps with 2" wide p.s. poly tape with tape extending a minimum of 4" over edges (in an "H" pattern, sealing all exposed seams).



**TEST RESULTS & SPECIFICS FOR FIBERBOARD BOXES –SOLIDS (4GS)****CONDITIONING [178.602 (d) (1) / 178.603 (c)]**

23±1° C &amp; 50±2% RH for 24 Hours

**REPETITIVE SHOCK VIBRATION (178.608)**

60 minutes, 90° rotation @ 30 minutes

(3 samples tested)

RESULT:

PASS

FAIL

**CONTROLLED FREE-FALL DROPS (178.603)**

DROP HEIGHT: 1.8 m

RESULT:

PASS

FAIL

1<sup>st</sup> drop: Flat on bottom2<sup>nd</sup> drop: Flat on top3<sup>rd</sup> drop: Flat on long side4<sup>th</sup> drop: Flat on short side5<sup>th</sup> drop: Corner**STACKING TEST (178.606)**REQUIREDACTUAL

RESULT:

PASS

FAIL

SURCHARGE:  
(3 samples tested)

317.6 lbs. 325 lbs.

**WATER ABSORPTION TEST (178.516)**

136,140,135,135,141

RESULT:

PASS

FAIL

Average: 137.4 g / sq.m / 30 minutes



## **TEST METHODS FOR FIBERBOARD BOXES – SOLIDS (4GS)**

### **REPETITIVE SHOCK VIBRATION TEST (ASTM D 999 METHOD A1 / A2)**

The vibrating apparatus consists of a table supported on eccentrics or cranks which are driven by shafts so as to give the table a circular harmonic vibratory motion in a vertical plane. It is capable of being operated at variable speeds to produce the various vibration frequencies experienced in transportation.

The vibration test is designed to simulate the small (1.0g to 1.1g) vertical shocks to which a package will be subjected to during truck or rail transportation. Empirically, it has been shown that this type of test will usually reproduce, overall, the type of damage incurred in shipment.

### **CONTROLLED FREE-FALL DROP TEST (ASTM D 775)**

The drop tester consists of a spring-loaded split table upon which the package is positioned in the orientation desired. In operation, the two sections pivot to each side, thus providing the package an unobstructed free-fall onto a concrete floor.

### **STATIC LOAD COMPRESSION TEST (ASTM D 4577 MOD.)**

The static load compression assembly consists of 3/4" plywood and a number of concrete panels / blocks and steel sheets. Utilizing the wood to uniformly distribute the test load, the dead weights are positioned upon the steel plates until the requisite, aggregate compressive load is achieved.

### **WATER ABSORPTION TEST (TAPPI T 441) (ISO 535)**

Cobb water absorption is conducted on the double-backer (outer facing) of five (5) specimens; a 100 sq. cm. cylinder is secured above the test specimen, which is placed atop a rubber mat to prevent leakage; 100 ml of water is then introduced into the cylinder, thus providing a one cm. bead of water; the initial and final weight of the specimen is recorded.

## **TEST PROCEDURES FOR FIBERBOARD BOXES – SOLIDS (4GS)**

Packages conditioned and tested @ standard laboratory conditions ( $23 \pm 1^\circ\text{C} + 50 \pm 2\%\text{RH}$ ).

### **REPETITIVE SHOCK VIBRATION TEST (49 CFR – 178.608)**

Three (3) packages were subjected to synchronous vibratory motions on a variable speed vibration table having an amplitude of one inch, producing a force of 1 g. Vibration frequency was set so the packaged product momentarily left the table  $\approx 1/16"$ . The packages were positioned in their normal shipping orientation and rotated  $90^\circ$ , horizontally, after one half of the vibration period was completed – total duration of vibration was 60 minutes.

### **CONTROLLED FREE-FALL DROP TEST (49 CFR – 178.603)\***

Each of five (5) packages were subjected to one (1) free-fall drop as follows:

Pack one: flat onto bottom surface	Drop Height: Group I: 1.8m ( $\approx 70.9"$ )
Pack two: flat onto top surface	Group II: 1.2m ( $\approx 47.25"$ )
Pack three: flat onto side of package	Group III: 0.8m ( $\approx 31.5"$ )
Pack four: flat onto end of package	
Pack five: cornerwise onto bottom	

### **STATIC LOAD COMPRESSION TEST (49 CFR – 178.606)**

Each of three (3) containers were orientated in their normal warehousing position, and the required dead weight load was applied at a rate of  $\approx 50$  pounds per minute – test loads were maintained for 24 hours, except that plastic drums, jerricans, and composite packaging 6HH, intended for liquids, shall be subjected to the stacking test for a period of 28 days at a temperature of not less than  $40^\circ\text{C}$  ( $104^\circ\text{F}$ ).

### **WATER ABSORPTION TEST (49 CFR – 178.516)**

Five (5) specimens, selected from various boxes, were subjected to water absorption tests, the average of the five (5) specimens (none exceeding 155 g / sq. m / 30 mins.) was recorded.

\*Special preparation of test samples for the drop test. Testing of plastic drums, jerricans and boxes, composite packagings with inner plastic receptacles, and of combination packagings with inner plastic receptacles, other than expanded plastic boxes and bags, must be carried out when the temperature of the test sample and its contents has been reduced to  $-18^\circ\text{C}$  ( $0^\circ\text{F}$ ) or lower. Test liquids shall be kept in the liquid state, if necessary, by the addition of anti-freeze.

## **ACCEPTANCE CRITERIA FOR FIBERBOARD BOXES – SOLIDS (4GS)**

### **REPETITIVE SHOCK VIBRATION TEST**

No rupture or leakage from any of the three (3) containers.

### **CONTROLLED FREE-FALL DROP TEST**

No leakage from inner receptacle(s) or packaging(s);  
No physical deterioration of the packages that would adversely affect the safe transport of said items.

### **STATIC LOAD COMPRESSION TEST**

No leakage from inner receptacle(s) or packaging(s);  
No physical deterioration of the packages that would adversely affect the safe transport of said items;  
No distortion liable to reduce package strength;  
No distortion liable to cause stack instability.

### **WATER ABSORPTION TEST**

No water absorption greater than 155 grams / sq. meter / 30 minutes.

## **CALIBRATION DATA**

### **BURST TESTER**

**DUE DATE:**

Mullen / BF Perkins – Inst. Cal Corp.

7-05

### **CHART RECORDERS**

Molytek – Cal-Lab

6-05

### **CONDITIONING CHAMBERS**

Conditioning Room

3-05

Chamber Blue M Ovens: Cal-Lab

6-05

Chamber (vacuum): VWR – Cal-Lab

6-05

Conditioning Chambers: Thermotron

3-05

### **COMPRESSION TESTING MACHINES**

Tinius Olsen – Cal-Rite Corporation

6-05

Instron TTC – Cal-Rite Corporation

6-05

### **CONTROLLED FREE-FALL DROP TESTERS**

Gaynes

6-05

L.A.B.

6-05

### **ELECTRONIC MICROMETERS**

Mitutoyo – Cal-Rite Corporation

6-05

Testing Machines, Inc. – Cal-Rite Corp.

6-05

### **HYDRAULIC PRESSURE GAUGE**

D&B – Cal-Lab

6-05

### **LABORATORY SCALE**

American Scientific Products – Cal-Rite Corporation

6-05

## **CALIBRATION DATA (CONTINUED)**

### **MECHANICAL MICROMETER**

E.J. Cady & Co. – Cal-Rite Corp.

**DUE DATE:**

6-05

### **PACKAGE SCALE**

AND: Cal-Rite Corp.  
BE 4315 A – Cal-Rite Corp.

6-05

6-05

### **PNEUMATIC PRESSURE GAUGE**

Continental Precision Instruments – Factory Calibrated

6-05

### **PUNCTURE TESTER**

TMI – Internal

6-05

### **TORQUE TESTER**

Secure Pak – Factory Calibrated

8-04

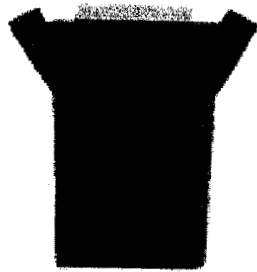
### **VIBRATION TESTING MACHINE**

ME 2500 - ISTA  
MTS-VR DDL - PCB

6-05

6-05

5 gallon box





U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

AUG 4 2003

400 Seventh St., S.W.  
Washington, D.C. 20590

DOT-E 10791  
(NINTH REVISION)

EXPIRATION DATE: July 31, 2005

(FOR RENEWAL, SEE 49 CFR § 107.109.)

1. GRANTEE: Con-Quest Products, Inc.  
Elk Grove Village, IL
2. PURPOSE AND LIMITATIONS:
  - a. This exemption authorizes the manufacture, marking and sale of a corrugated fiberboard box for use as the outer packaging for lab pack applications in accordance with § 173.12(b). This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.
  - b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 173.12(b)(2) in that a UN 4G packaging is not authorized, except as specified herein.
5. BASIS: This exemption is based on Con-Quest Products, Inc.'s application dated July 16, 2003, submitted in accordance with § 107.109.

AUG 4 2003

Continuation of DOT-E 10791 (9th Rev.)

Page 2

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Waste hazardous materials classed as Class or Division 3, 4.1, 4.2, 4.3, 5.1, 6.1, 8, or 9, which are authorized to be shipped in lab packs in accordance with § 173.12(b). *	3, 4.1, 4.2, 4.3, 5.1, 6.1, 8, or 9.	As appropriate	I, II, or III as appropriate

\*See Paragraph 7(c) of this exemption for restrictions on authorized materials.

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packaging prescribed is a UN 4G fiberboard box fitted with a polyethylene film bag liner.

(1) The box with a 64-gallon capacity is constructed of triple-wall corrugated fiberboard and fabricated according to the description in the application dated November 14, 1994. The gross weight of the completed package may not exceed 205 kg (452 pounds).

(2) The box of up to 55-gallon capacity is constructed of double-wall, corrugated fiberboard and fabricated according to the description in the Advanced Packaging Laboratories' test report dated February 17, 1997, submitted with Con-Quest Products' letter dated February 18, 1997. The gross weight of the completed package may not exceed 147.4 kg (325 pounds).

(3) The box of up to 30-gallon capacity is constructed of double-wall corrugated fiberboard and fabricated according to the description in the Advanced Packaging Laboratories' test report submitted with the letter dated June 15, 1995 or the Advanced Packaging Laboratories' test report dated March 21, 1996. The gross weight of the completed package may not exceed 113.3 kg (250 pounds).

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(4) Inner packagings may be glass packagings not exceeding 4L (1 gallon), or metal or plastic packagings not exceeding 20L (5.3 gallons).

(5) Inner packagings containing liquid must be surrounded, within the polyethylene film bag liner, by a chemically compatible absorbent material in sufficient quantity to absorb the total liquid contents.

b. TESTING - The box, filled to 95% of capacity with a solid material, or packed in accordance with the schematic drawing submitted with the April 15, 1992 application, must be satisfactorily tested in accordance with §§ 178.603 and 178.606 at the Packing Group II level. In addition, the packaging must be capable of withstanding the vibration standard described in § 178.608.

c. OPERATIONAL CONTROLS - Materials meeting the definition of Division 6.1, Packing Group I, or Division 4.2; Packing Group I; and bromine pentafluoride; bromine trifluoride; chloric acid; and oleum (fuming sulfuric acid) may not be shipped under the terms of this exemption.

8. SPECIAL PROVISIONS:

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this exemption for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this exemption.

b. A person who is not a holder of this exemption, but receives a package covered by this exemption, may reoffer it for transportation provided no modifications or changes are made to the package and it is offered for transportation in conformance with this exemption and the HMR.

c. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

d. Each packaging manufactured under the authority of this exemption must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Exemptions and Approvals for a specific manufacturing facility.

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e. A current copy of this exemption must be maintained at each facility where the package is manufactured under this exemption. It must be made available to a DOT representative upon request.

f. MARKING: In addition to the markings required by § 178.503, each box must be plainly and durably marked "DOT-E 10791" on a contrasting background.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by Federal hazardous materials transportation law, 5101 et seq:

- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8 who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

Issued in Washington, D.C.

*for* *Anna Muzzullo*  
Robert A. McGivney  
Associate Administrator  
for Hazardous Materials Safety

AUG 4 2003  
(DATE)

Address all inquiries to: Associate Administrator for Hazardous  
Materials Safety, Research and Special Programs Administration,  
Department of Transportation, Washington, D.C. 20590.  
Attention: DHM-31.

Copies of this exemption may be obtained by accessing the  
Hazardous Materials Safety Homepage at  
<http://hazmat.dot.gov/exemptions> Photo reproductions and legible  
reductions of this exemption are permitted. Any alteration of  
this exemption is prohibited.

PO: AM



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September 8, 2004

Ann Mazzullo  
Hazardous Materials Safety, Research And Special Programs Administration  
U.S. Department Of Transportation  
ATTN: DHM-31  
400 7th Street, SW  
Washington, DC 20590-0001

Dear Ann:

Enclosed are two Exemption applications. I hope that I have provided everything that you may need.  
Thanks in advance for your help directing how these are to be processed.

Thank you for your time and consideration of this matter. Any questions should be directed to Joe Kerrigan  
at 330-966-2070.

Cordially,

Joe Kerrigan  
Vice President

HAZMAT SAFETY  
DOT/RSFA  
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